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EXAMINER

CHANKONG, DOHM

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

MAILED

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Technology Center 2100

Application Number: 10/029,733
Filing Date: December 18, 2001
Appellant(s): PICRAUX, JEANINE

Joseph A. Nguyen, Reg. No. 37899
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/20/2006 appealing from the Office action mailed 2/8/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,949,799	GRIVNA ET AL.	9-1999
6,748,442	KELLER	6-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-11, 20-22, and 24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Grivna et al. (U.S. Patent Number 5,949,799), hereinafter referred to as Grivna.

Some claims will be discussed together. Those claims which are essentially the same except that they set forth the claimed invention as a system or a computer-readable medium are rejected under the same rationale applied to the described claim.

Grivna has disclosed:

- <Claims 9, 20, and 24>

A method for transmitting information from a second node to a first node, comprising the steps of: establishing a communication link between the first node and the second node (column 2, lines 63-65); identifying a data transaction being transmitted from the second node via the data link to the first node; the data transaction including a header and a plurality of data pieces (figure 5, "Outbound Packet" and column 3, lines 8-12); the first node, based on data in the header, counting the data pieces to identify the end of the transaction (column 3, lines 19-27); stalling the data transaction to send a packet on the communication link to the first node; the packet including the information (column 5, lines 57-66); and the first node counting the packet as not part of the data transaction (column 6, lines 15-21).

- <Claims 10 and 21>

The method of claim 9 further comprises the step of running the first node and the second node at two different frequencies (column 9, lines 40-52).

- <Claims 11 and 22>

The method of claim 9 further comprises the step of including instructions in the information for the first node to perform a task (column 3, lines 48-59).

Since all the limitations of the invention as set forth in claims 9-11, 20-22, and 24 were disclosed by Grivna, claims 9-11, 20-22, and 24 are rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 12-18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grivna in view of Keller (U.S. Patent Number 6,748,442).

Grivna disclosed a minimum latency data mover that embeds a response in the data flow thereby enabling transmission of the next packet without first waiting for complete transmission of an incoming packet. In an analogous art, Keller disclosed a method for inserting control data into the data flow on a packet based network communication link.

Concerning claims 1, 12, and 23, Grivna did not explicitly state a communication link having multiple channels for transmitting multiple data transactions. However, it was well known in the art for a communication link to include multiple channels. This is evidenced by Keller's system which maintains multiple channels across a communication link. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Grivna by adding the ability to use a communication link having multiple channels for transmitting multiple data transactions as provided by Keller. Here the combination satisfies the need for a reduction in latency issues that occur with the transfer of both regular packet data and command data across communication links. See Grivna, column 1, lines 38-47 and Keller,

column 1, lines 56-67. This rationale also applies to those dependent claims utilizing the same combination.

Some claims will be discussed together. Those claims which are essentially the same except that they set forth the claimed invention as a system or a computer-readable medium are rejected under the same rationale applied to the described claim.

Thereby, the combination of Grivna and Keller discloses:

- <Claims 1, 12, and 23>

A method for transmitting information from a second node to a first node, comprising the steps of: establishing a communication link between the first node and the second node (Grivna, column 2, lines 63-65); the communication link having multiple channels for transmitting multiple data transactions (Keller, column 6, lines 27-57); allowing one or more data transactions transmitted on the communication link between the first node and the second node (Grivna, column 6, lines 25-34); identifying a data stream of a data transaction being transmitted from the second node to the first node (Grivna, figure 5, "Outbound Packet"); stalling the transaction at any time during the transaction (Grivna, column 5, lines 57-66); saving a status of the transaction at the time the transaction is stalled (Grivna, column 5, line 57 through column 6, line 6); inserting the information into the identified data stream without regards to a boundary of the transaction (Grivna, column 5, lines 57-66); and based on the saved status, resuming the transaction, thereby transmitting the information from the second node via the data stream to the first node (Grivna, column 6, lines 1-6); wherein the information is not part of the data transaction

when the data transaction starts from the second node to the first node (Grivna, column 5, lines 1-9).

- <Claims 2 and 13>

The method of claim 1 further comprising the step of running the first node and the second node at two different frequencies (Keller, column 5, lines 31-37).

- <Claims 3 and 14>

The method of claim 1 further comprising the step of including instructions in the information for the first node to perform a task (Grivna, column 3, lines 48-59).

- <Claims 4 and 15>

The method of claim 3 wherein the task includes one or a combination of resending some data, removing the first node, removing a part of the first node, restarting the first node, resetting the first node, notifying the first node, authorizing the first node (Grivna, column 3, lines 48-59).

- <Claims 5 and 16>

The method of claim 1 further comprising the step of sending the information in a packet normally used for synchronizing the first node and the second node (Grivna, column 3, lines 48-59).

- <Claims 6 and 17>

The method of claim 1 further comprising the step of sending the information in a packet that is not counted as part of the data stream being transmitted from the second node to the first node (Grivna, column 6, lines 15-21).

- <Claims 7 and 18>

The method of claim 1 wherein the first node and the second node are selected from a group consisting of a computer system, a network device, a microprocessor, and an electronic chip (Grivna, column 6, lines 25-34).

Since the combination of Grivna and Keller discloses all of the above limitations, claims 1-7, 12-18, and 23 are rejected.

(10) Response to Argument

In the brief, the applicant has argued:

- <Argument 1>

Grivna does not disclose the features of independent claim 9 and like independent claims 20 and 24 because he does not disclose “stalling the data transaction to send a packet on the communication link to the first node; the packet including the information; and the first node counting the packet as not part of the data transaction” as recited in claim 9.

- <Argument 2>

The combination of Grivna and Keller does not disclose the features of independent claim 1 and like independent claims 12 and 23 because Grivna teaches away from the limitation that recites “wherein the information is not part of the data transaction” as recited in claim 1.

- <Argument 3>

The combination of Grivna and Keller does not disclose the features of independent claim 1 and like independent claims 12 and 23 because it does not disclose “inserting the

information into the identified data stream without regards to a boundary of the transaction” as recited in claim 1.

- <Argument 4>

It would not have been obvious to combine Grivna and Keller because there exists no motivation or suggestion to reasonably combine the references.

In response to argument 1 (set forth on pages 10-11 of the brief under section A, number 1), it is maintained that Grivna does disclose the packet information and the counting of the packet as recited in claim 9. The previous line citations to Grivna, column 5, lines 57-66 and column 6, lines 15-21, clearly state that a data transaction is stalled (“transmission of the packet characters is suspended”) to send a packet including the information (“the command is inserted into the data stream”) and that the receiving node counts the packet as not part of the data transaction (“when the differentiation character is received, the receipt of packet characters is suspended”). Before going into further detail, it is important to discuss the meaning of “the data transaction” as taken in light of the applicant’s specification and as represented in the prior art. On page 6, lines 9-12 of the specification the applicant states that “the term transaction indicates a distinct stream of data being sent from one node 110 to another node 110; and a transaction starts at the beginning boundary of a stream and ends at the ending boundary of the same stream.” Thus, a data transaction as described in the present application is clearly analogous to Grivna’s data packet 24 which is a stream of data being sent from one node to another. The data packet 24 is made up of packet characters 12. See Grivna, figure 5 and again column 5, lines 57-66. It is important to note that the purpose of Grivna is to insert commands *into* the data stream

or data packet 24 and not only to add the command onto the beginning or end. See Grivna, column 6, lines 7-9.

In support of argument 1, the applicant states that “Grivna specifically discloses methods to include instructions as part of the normal overhead of data transmission” and that this differs from the present invention which claims that the packet including the information is counted as not part of the data transaction. However, Grivna clearly teaches that the command inserted into the data stream is counted as not part of the data transaction. Again see Grivna, column 6, lines 15-21. Grivna uses differentiation characters so that the receiving node is able to determine when a command is being received, meaning the receiving node differentiates the command from the normal packet characters of the stream. As cited, “When the differentiation character is received, the receipt of packet characters is suspended,” then after the command is processed, “receipt of the packet characters resumes.” Therefore it is clear that Grivna’s system counts the received command (ie. the claimed packet including the information) as not part of the normal data stream. See also Grivna, column 5, lines 43-47. Differentiation characters are used to specifically differentiate the command from normal packet characters.

Furthermore, it is noted that Grivna’s command 22 meets the limitation of the claimed “packet including the information” as the command “can be of any length and combination of data characters and command characters” and the command contains some information for the other node such as an ACK. See Grivna, column 4, lines 32-67 and column 5, lines 18-27.

In response to argument 2 (set forth on pages 11-12 of the brief under section B, number 1), it is maintained that the combination of Grivna and Keller does disclose the packet

information as recited in claim 1 and that Grivna does not teach away from the claims. For the reasons discussed above in response to argument 1, it is maintained that Grivna does in fact teach inserting information into the data stream "wherein the information is not part of the data transaction". Similarly to argument 1, here the applicant has argued again that "Grivna specifically discloses methods to include instructions as part of the normal overhead of data transmission." Again, it is reiterated that Grivna specifically differentiates between the embedded command and the rest of the data stream. See Grivna, column 4, lines 26-31 and again column 5, lines 24-27 and 43-47.

In response to argument 3 (set forth on pages 12-13 of the brief under section B, number 1), it is maintained that the combination of Grivna and Keller does disclose inserting the information into the identified data stream without regards to a boundary of the transaction as recited in claim 1. The previous line citation to Grivna, column 5, lines 57-66, clearly states that information is inserted into the identified data stream ("embedding the command into the data packet") without regards to a boundary of the transaction ("the command is inserted into the data stream and transmitted without interruption"). The applicant has argued that Grivna waits for a character boundary while the present invention inserts the information without regard to boundary. However, the present invention inserts the information without regard to a boundary *of the transaction*. Clearly, the boundary of the transaction is not the same as a character boundary within the transaction. Grivna's data stream or transaction is made up of a multitude of characters 12 and waiting for a character boundary is clearly not the same as waiting for the end of the entire transaction. See again Grivna, column 4, lines 32-47 and column 6, lines 7-9.

In response to argument 4 (set forth on pages 13-14 of the brief under section B, number 2), it is maintained that it would have been obvious to combine Grivna and Keller and that there is motivation or suggestion to reasonably combine the references. First, the applicant again argues that "Grivna specifically discloses methods to include instructions as part of the normal overhead of data transmission" and thus teaches away from the claimed limitations. Again, it is maintained that Grivna specifically differentiates between the embedded command and the rest of the data stream as described in detail above. Second, the applicant again argues that Grivna inserts the information on the next character boundary which teaches away from the claimed limitations. Again, it is maintained that Grivna teaches inserting the information without regards to a boundary of the transaction as described in detail in the response to argument 3 above.

Furthermore, the applicant argues that "Grivna is completely lacking in any motivation or suggestion to reasonably combine the cited references." However, the applicant has not addressed the motivation to combine previously stated in the rejection. See the rejection above which states that "the combination satisfies the need for a reduction in latency issues that occur with the transfer of both regular packet data and command data across communication links." It is maintained that this is sufficient motivation to combine the references as one of ordinary skill in the art would have recognized the advantages in both Grivna and Keller for reducing latency when transferring command data across a network. Again see Grivna, column 1, lines 38-47 and Keller, column 1, lines 56-67.

For the above reasons, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,



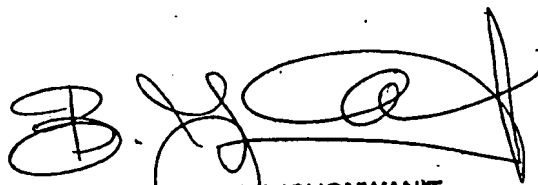
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Dated: February 9, 2007

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